



A partnership between the citizens and governments of the State of Washington and the U.S. Army Corps of Engineers and other federal agencies.

#### What is the Puget Sound Nearshore?

The Puget Sound Nearshore extends from the bluffs and the shoreline to approximately 30 feet deep into the waters of the sound. The nearshore boasts an essential, diverse, and abundant network of plants and animals.

Changes to the nearshore such as artificial structures (tide gates and bulkheads) and pollution from various sources including failing septic systems and agricultural and industrial activities can cause significant harm to the complex, fragile system.

### Who needs the Puget Sound Nearshore?

For centuries, people have been drawn to the nearshore for economic and recreational purposes. Today, within the Northwest our lifestyles and economy rely on the Puget Sound Nearshore.

Shellfish and salmon industries, ports, and recreational activities all depend on the tidelands and shoreline.



#### What is the problem with the nearshore?

Life within the nearshore is in jeopardy. That jeopardy can cause further harm to people who live near or depend on the nearshore, as well as to the greater Puget Sound environment. Nine of the 10 species listed as endangered or threatened within the Puget Sound region inhabit the nearshore.

Federally Listed Speci	Habitat Used		
	Uplands	Nearshore	Offshore
Bald Eagle	9	9	
Marbled Murrelet	9	9	9
Puget Sound Bull Trout	9	9	9
Aleutian Canada Goose	9	9	
Humpback Whale		9	9
Stellers Sea Lion		9	9
Hood Canal Summer Chum Salmon		9	9
Puget Sound Chinook Salmon		9	9
Spotted Owl	9		
Howelia Aquatilis	9	9	

People have changed the nearshore much faster than plants and animals could adapt. Since 1970, 1.7 million people have been added to the population of Puget Sound, which now is home to 3.9 million people. By 2020, nearly 5 million people are expected to live in the Puget Sound region. If the nearshore is to survive, we must find ways to reverse the rapid deterioration of the ecosystem and dependent economy.

Development has modified shorelines and reduced the necessary movement of sediment, which is critical to successful spawning for forage fish and productive shellfish. For example, the shoreline of Seahurst Park in Burien has been degraded by a rock intertidal structure built to assist public access. The result has been wide-scale changes in the beach shape, makeup, and use by aquatic species.

Alterations to the Sound's productivity have travelled throughout the food chain. Pollution in parts of Puget Sound have caused lesions and tumors in flatfish that eagles, seals, birds, and porpoises eat. Reductions in forage fish populations from sea grass impacts due to human development and shoreline modifications have direct effects on salmon survival and possibly to the orca that feed almost entirely on herring, baitfish, and salmon.

## What has been done to fix the problem?

Many organizations have attempted to preserve and restore parts of the nearshore through a variety of methods. Within the past 30 years, small-scale restoration projects have resulted in some improvements; yet, the ecosystem continues to degrade at a rate faster than restoration has occurred. Local efforts have been made to protect critical habitat; however, the efforts have addressed a very small portion of the entire problem.

#### What is needed?

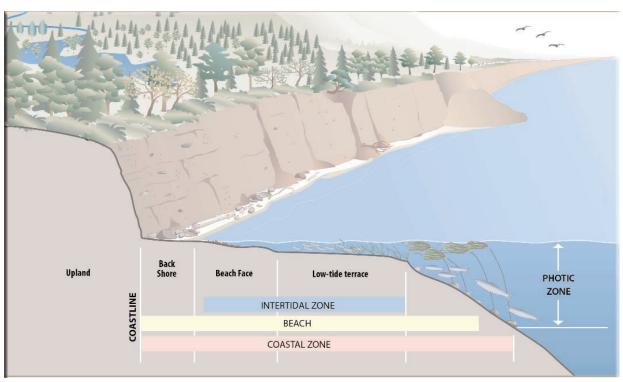
A comprehensive and coordinated approach to the restoration and preservation of the Puget Sound Nearshore that is proportional to the magnitude of the tasks is needed now.

The Puget Sound Nearshore Project is a collaborative partnership among the Washington State Department of Fish and Wildlife, U.S. Army Corps of Engineers, tribes, other state and federal agencies, environmental organizations, local governments, and industries.

The partnership is committed to solving nearshore problems together, and it knows that the individual organizations have been unable to remedy the deterioration alone. The nearshore project team has rapidly gained support and acknowledgement from industry and environmental groups who recognize the importance of the team's efforts and the promise of success.

In 1999 Congress authorized the U.S. Army Corps of Engineers to do a general investigation of the nearshore with funds appropriated for the study in the Water Resources Development Act of 2000.

We need continued support to restore the Puget Sound Nearshore.



#### Nearshore Section Illustrating Typical Zonation

State of the Nearshore Report

Map produced by: GIS and Visual Communications Unit, WLR File name: 0012 SON Near Section.eps2 LP







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# What is the Puget Sound Nearshore?

Puget Sound is one of the nation's largest and most complex inland seas and it is an extremely unique ecosystem. Puget Sound boasts:

- Diverse flora and fauna ranging from kelp forests to orca whales;
- Wide tidal range that has created some of the largest, most productive estuarine environments in the world; and
- 2,500 miles of shoreline.

Puget Sound is central to Washington State's economic prosperity and it is of national significance. It provides:

- Prosperous salmon and shellfish industries;
- Access to numerous ports and refineries serving Northwestern states;
- Quality of life that attracts and inspires citizens who revolutionize high technology ranging from aerospace to the Internet and biotech; and
- · Unique natural features for shipping and military facilities.

Puget Sound has experienced significant physical changes to its nearshore habitat as well as population declines in some its best-known and important plant and animal species:

- Human development has modified one-third of the Puget Sound shoreline;
- Inter-tidal salt marsh habitat has declined 75 percent since the 1800s;
- Nine of the 10 species listed as endangered or threatened within the Puget Sound region inhabit the nearshore;
- Three Puget Sound salmon species have been listed as in danger of becoming extinct according to the federal Endangered Species Act; and
- Resident Orca whale populations have declined significantly from 97 in 1996 to 78 in 2001.



A General Investigation Reconnaissance Study conducted by the U.S. Army Corps of Engineers in 2000 identified a direct link between properly functioning (healthy) nearshore habitat and the physical condition of the shoreline. The study identified four areas that need restoration and improvement:

- Restoring shoreline processes to a more natural state:
- Providing beaches with essential sand and gravel materials;
- Removing, moving, and modifying artificial structures (bulkheads, rip rap, etc.); and
- Using alternative measures to protect shorelines from erosion.

Timeline	1999	2001	2001	2005**	2008**	Duration of Project
Project Phase/	Reconnaissance Study	Washington Dept. of Fish and Wildlife and the U.S. Army Corps of Engineers	General Investigation/ Assessment*	Engineering and Design	Construction - General	Maintenance (Monitoring)
Stage		enter into a Federal/ Local Cost-Share Agreement	* Some construction on "early-action" projects to begin under separately funded construction authorities  ** Estimated timeline			

### Creation of the Puget Sound Nearshore Project

In 2001, diverse organizations agreed to a collaborative approach to ecosystem restoration and protection and committed support and resources to the Puget Sound Nearshore Ecosystem Restoration Project.

# Preserving and Restoring the Environmental Puget Sound Nearshore

The U.S. Army Corps of Engineers and the Washington State Department of Fish and Wildlife have entered into a 50/50 cost share agreement, and with the cooperation of a multitude of agencies and organizations have initiated a general investigation study. This investigation has allowed scientists and engineers to begin to assess and identify ecosystem restoration and protection opportunities while developing criteria to set priorities and develop projects in the Puget Sound nearshore environment.

Concurrently, the Puget Sound and Adjacent Waters Project that Congress authorized in the 2000 Water Resource Development Act provides a means to begin funding construction of critical habitat restoration and protection projects.

Right now, the 2002 Washington State Legislature is considering a petition for the Puget Sound nearshore. It is anticipated that the petition will be presented to the President and United States Congress and request the following measures:

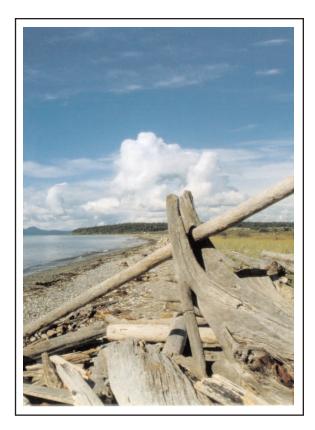
- Support funding for programs and activities in federal, state, tribal and local agencies that conduct monitoring, research, data management, and assessment of the Puget Sound nearshore environment, and
- Support funding for construction of priority projects in the nearshore environment

#### Request to the U.S. Army Corps of Engineers to:

- Provide adequate funding to the Puget Sound Nearshore Project, including an additional \$800,000 in federal fiscal year 2002 to implement stage one of the Project Management Plan, and
- Support the Puget Sound Nearshore Project as a major habitat restoration project of national significance.

#### Petition to the President and United States Congress to:

- Provide \$1.2 million in fiscal year 2003 to continue the feasibility phase of the Puget Sound Nearshore Ecosystem Restoration Project, and
- Provide \$2 Million in fiscal year 2003 to begin construction of nearshore habitat projects under the Puget Sound and Adjacent Waters authorization.



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